

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number
WO 2004/111200 A2

- (51) International Patent Classification⁷: C12N Ren [US/US]; 3910 Clarestone Dr., Pearland, TX 77584 (US).
- (21) International Application Number: PCT/US2004/018731 (74) Agent: WOOTEN, David, K.; Vinson & Elkins LLP, 2300 First City Tower, 1001 Fannin Street, Houston, TX 77002-6760 (US).
- (22) International Filing Date: 8 June 2004 (08.06.2004)
- (25) Filing Language: English (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (26) Publication Language: English
- (30) Priority Data: 60/477,130 9 June 2003 (09.06.2003) US
- (71) Applicant (for all designated States except US): BAYLOR COLLEGE OF MEDICINE [US/US]; One Baylor Plaza, Houston, TX 77030 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): THOMPSON, Timothy, C. [US/US]; 4907 Imogene Street, Houston, TX 77096 (US). CHENGHUI, Ren [CN/US]; 6220 Alder Dr., Apt. 4108, Houston, TX 77081 (US). CHENGZHEN,
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: RTVP-GLIPR-LIKE COMPOSITIONS AND METHODS FOR THE DETECTION, TREATMENT AND PREVENTION OF PROSTATE CANCER

RTVP-1 and RGL1 α , RGL1 β protein compare

```
RTVP-1  MRVTLATIAHNVSPVSNYSHTANILFDIENEDFIKDCVRIHMKFRSEVKPTASDMLYMTW
RGL $\alpha$      MALKNKFSCWLWGLCLVATSSKIPSTIDPHIDNCIRAHNEWGKVNPPAADMRYMTW
RGL $\beta$      MALKNKFSCWLWGLCLVATSSKIPSTIDPHIDNCIRAHNEWGKVNPPAADMRYMTW
RTVP-1  DPALAQIAKAWASNCQFSHTRLKPPHKLHPNFTSLGENIWTGSPVIFSVSSALTNWYDE
RGL $\alpha$      DKGLAKMAKAWANQCKFHNDCIDRSYKCYAAPFYVGENIWLGGIKSFTPRHAITAWYNE
RGL $\beta$      DKGLAKMAKAWANQCKFHNDCIDRSYKCYAAPFYVGENIWLGGIKSFTPRHAITAWYNE
RTVP-1  IQDYDFKTRICKKVCGHITQVWVADSYKVCQAVQPCPKVSGFDALSNGAHFICNTGPGGN
RGL $\alpha$      TQFYDFDLSLCSRVCGHITQLVWQNSFYVGCVAVMCPNLGG---ASTALPVCNTGPGAGN
RGL $\beta$      TQFYDFDLSLCSRVCGHITQLVWQNSFYVGCVAVMCPNLGG---ASTALPVCNTGPGAGN
RTVP-1  YPIW-PYKRGATCSACPNNDKCLDNLG-----VNRQRDQVK-RYTSVYV
RGL $\alpha$      FANNPPYVRGESCILCSKEKCVKNLCK-----NPFLLKPTGRAPQQTAFNPFSLGF
RGL $\beta$      FANNPPYVRGESCILCSKEKCVKNLCTPQLIIPNQNPFLKPTGRAPQQTAFNPFSLGF
RTVP    FGMPIYPRNRYTSLPLIVNSVILILSVIITILVQLKYPNLVLLD
RGL $\alpha$      LLLRIP (SEQ ID NO: 2)
RGL $\beta$      LLLRIP (SEQ ID NO: 4)

signal peptide      MQVILAVTVM
SCP-domain (sig1, sig2) VCGHTFQVWVAD
Caveolin binding site  YHSTQYDF
TM-domain           TTSFLIVNSVILILSVIITILV
```

(57) Abstract: The invention is directed to purified and isolated novel RGL polypeptides, the nucleic acids encoding such polypeptides, processes for production of recombinant forms of such polypeptides, antibodies generated against these polypeptides, fragmented peptides derived from these polypeptides, and the uses of the above.

WO 2004/111200 A2



SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *without international search report and to be republished upon receipt of that report*

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number
WO 2004/111200 A3

(51) International Patent Classification⁷: C12Q 1/68,
C07H 21/04

(21) International Application Number:
PCT/US2004/018731

(22) International Filing Date: 8 June 2004 (08.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/477,130 9 June 2003 (09.06.2003) US

(71) Applicant (for all designated States except US): BAYLOR
COLLEGE OF MEDICINE [US/US]; One Baylor Plaza,
Houston, TX 77030 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): THOMPSON,
Timothy, C. [US/US]; 4907 Imogene Street, Houston, TX
77096 (US). CHENGHUI, Ren [CN/US]; 6220 Alder Dr.,
Apt. 4108, Houston, TX 77081 (US). CHENGZHEN,
Ren [US/US]; 3910 Clarestone Dr., Pearland, TX 77584
(US).

(74) Agent: WOOTEN, David, K.; Vinson & Elkins LLP, 2300
First City Tower, 1001 Fannin Street, Houston, TX 77002-
6760 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
15 September 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: RTVP-GLIPR-LIKE COMPOSITIONS AND METHODS FOR THE DETECTION, TREATMENT AND PREVEN-
TION OF PROSTATE CANCER

(57) Abstract: The invention is directed to purified and isolated novel RGL polypeptides, the nucleic acids encoding such polypep-
tides, processes for production of recombinant forms of such polypeptides, antibodies generated against these polypeptides, frag-
mented peptides derived from these polypeptides, and the uses of the above.

WO 2004/111200 A3